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CLAIM AMENDMENTS

1. (currently amended) A recombinant nucleic acid for promoting microbial production of L-serine directly from carbohydrates, by avoiding or at least reducing decomposition of the L-serine to pyruvate and which is capable of replication in a microorganism of the family Corynebacterium said recombinant nucleic acid ~~having~~ comprising at least one serine biosynthesis sequence selected from the group consisting of serA, serB and serC and a nucleotide sequence encoding L-serine dehydratase which is partially ~~or completely~~ deleted or is mutated or fragments of the nucleotide sequence according to SEQ ID NO:1 encoding L-serine dehydratase flanking the 5' end and the 3' end of said nucleotide sequence encoding L-serine dehydratase to permit complete removal of said nucleotide sequence encoding L-serine dehydratase by homologous recombination and which is expressed to a lesser degree than the expression of the naturally occurring L-serine dehydratase having nucleotide sequence of SEQ ID NO: 1 or which is not expressed at all.

2. (previously presented) A recombinant nucleic acid according to claim 1, wherein the nucleotide sequence encoding L-serine dehydratase is partially deleted or is mutated and expressed to a lesser extent in comparison with the expression of the naturally occurring sequence of SEQ ID NO: 1 or not expressed at all.

3. (previously presented) A recombinant nucleic acid according to claim 2, wherein the nucleotide sequence encoding L-serine dehydratase is a nucleotide sequence according to SEQ ID NO 1 whose nucleotides from position 506 to position 918 are completely or partially deleted or are mutated, or an allele functionally equivalent thereto, or a homolog having a sequence complementary to said nucleotide sequence according to SEQ ID NO 1 whose nucleotides from position 506 to position 918 are completely or partially deleted or are mutated or a nucleotide sequence hybridizing under stringent conditions with said nucleotide sequence according to SEQ ID NO 1 whose nucleotides from position 506 to position 918 are completely or partially deleted or are mutated.

4. (previously presented) A recombinant nucleic acid according to claim 1, isolated from a coryneform bacterium.

5. (previously presented) A recombinant nucleic acid according to claim 1, isolated from Corynebacterium or Brevibacterium.

6. (previously presented) A recombinant nucleic acid according to claim 1, isolated from Corynebacterium glutamicum or Brevibacterium flavum.

7. (previously presented) A gene structure containing at least one nucleotide sequence according to claim 1 and nucleotide sequences having regulatory sequences operatively linked therewith.

8. (previously presented) A vector containing at least one nucleotide sequence or a gene structure according to claim 7 and additional nucleotide sequences for selection, for replication in the host cell or for integration in the host cell genome.

9 through 13 (canceled)

14. (currently amended) A microorganism having at least one serine biosynthesis sequence selected from the group consisting of serA, serB and serC and [[a]] an endogenous nucleotide sequence which encodes an L-serine dehydratase, which is deleted in whole or in part or is mutated and which is expressed to a reduced extent in comparison with expression of the naturally occurring L-serine dehydratase having nucleotide sequence of SEQ ID NO: 1 or is not expressed at all, so that the endogenous nucleotide sequence encoding L-serine dehydratase no longer encodes a protein with L-serine dehydratase activity.

15. (currently amended) A microorganism according to claim 14, wherein the nucleotide sequence which encodes an L-serine dehydratase has [[q]] a nucleotide sequence of SEQ ID NO: 1 which is partially deleted or mutated and is expressed to a reduced extent in comparison with expression of the naturally occurring L-serine dehydratase or is not expressed at all.

16. (previously presented) A microorganism containing in a form capable of replication, a nucleic acid according to claim 1.

17. (currently amended) A microorganism according to claim 14, that [[it]] is a coryneform bacterium.

18. (previously presented) A microorganism according to claim 14, belonging to the family of coryneform bacteria or brevibacteria.

19. (previously presented) A microorganism according to claim 14, belonging to the family of Corynebacterium glutamicum or Brevibacterium flavum.

20. (previously presented) A probe for identifying and/or isolating genes coding for proteins which participate in the biosynthesis of L-serine and which has a length of 10 to 30 nucleic acids, and which contains a partial sequence of the nucleic acid which encodes an L-serine dehydratase, according to claim 1, serving as a suitable marker for detection of said genes.

21 through 25 (canceled)

26. (currently amended) A recombinant nucleic acid for promoting microbial production of L-serine directly from carbohydrates, by avoiding or at least reducing decomposition of the L-serine to pyruvate and which is capable of replication in a microorganism of the family Corynebacterium said recombinant nucleic acid having at least one serine biosynthesis sequence selected from the group consisting of serA, serB and serC and a nucleotide sequence encoding L-serine dehydratase according to SEQ ID NO 1 whose nucleotides from position 506 to position 918 are completely or partially deleted or are mutated ~~and expressed to a lesser degree than the expression of the naturally occurring L-serine dehydratase having nucleotide sequence of SEQ ID NO: 1 or which is not expressed at all~~ such that said sequence no longer encodes a protein having L-serine dehydratase activity.

27. (previously presented) The recombinant nucleic acid defined in claim 26 having a nucleotide sequence encoding L-serine dehydratase according to SEQ ID NO 1 whose nucleotides from position 506 to position 918 are completely deleted.

28. (New) The recombinant nucleic acid defined in claim 1 comprising at least one serine biosynthesis sequence selected from the group consisting of serA, serB and serC and fragments of the nucleotide sequence according to SEQ ID NO:1 encoding L-serine dehydratase flanking the 5' end and the 3' end of said nucleotide sequence encoding L-serine dehydratase to permit complete removal of said nucleotide sequence encoding L-serine dehydratase by homologous recombination and which is not expressed at all.